IEEE P802.11
Wireless LANs

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| Remaining PHY Math comment resolutions |
| Date: 2019-8-19 |
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Abstract: This document contains proposed resolutions for comments from 11ax D4.3 with the CIDs below.

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| ***Clause 27.3.11.5**** 21011

***Clause 27.3.11.14**** 21097

***Clause 27.3.11.16**** 21121
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| ***Clause 26.16**** 21492
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| 21011 | 27.3.11.5 | 614.62 | "If the TXVECTOR parameter TRIGGER\_METHOD is TRS then the parameter LDPC\_EX-TRA\_SYMBOL is 1 and initial parameters set to NSYM,init = NSYM, and ainit = a - 1, where a is thepre-FEC padding factor set to 4 and NSYM is set to FVAL + 1, where FVAL is the value of the UL DataSymbols subfield of the TRS Control subfield." is clunky and does not match the previous para. Also the claims on LDPC\_EXTRA\_SYMBOL and pre-FEC padding factor are at best duplication | Change the cited text at the referenced location to "If the TXVECTOR parameter TRIGGER\_METHOD is TRS, set initial parameters to NSYM,init = FVAL + 1, and ainit = 3, where FVAL is the value of the UL DataSymbols subfield of the TRS Control subfield.". At 586.30 change "NSYM,init = NSYM, and ainit = a where a is the pre-FEC padding factor set to 4 and NSYM is set to FVAL+ 1, where FVAL is the value of the UL Data Symbols subfield of the TRS Control subfield" to "NSYM,init = FVAL + 1, and ainit = 4, where FVAL is the value of the UL Data Symbols subfield of the TRS Control subfield" | **Revised.**Change to as in the resolution of CID21011 in doc IEEE802.11-19/1515r1. |

ax editor: please make the following change in D4.3 *Clause 27.3.11.5*

* On P614L62 (CID #21011):

If the TXVECTOR parameter TRIGGER\_METHOD is TRS, the initial parameters are , and , where F*VAL* is the value of the UL Data Symbols subfield of the TRS Control subfield

* On P615L27 (CID #21011):

If the TXVECTOR parameter TRIGGER\_METHOD is TRS then the parameter LDPC\_EX­TRA\_SYMBOL is 1 and initial parameters set to , and , where F*VAL* is the value of the UL Data Symbols subfield of the TRS Control subfield.

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| 21097 | 27.3.11.14 | 629.12 | Equation without mid-amble : "If midambles are not present, the time" | Define equation with mid-ambles or have reference to mid-amble section | **Rejected.**Equation for data field with mid-ambles will be very complicated to write concisely. In addition, Equations (27-3) and (27-4) in 27.3.9 Mathematical description of signals are defined for transmissions without midamble as well. Clause 27.3.11.16 Midambles have detailed descriptions on how to implement midambles in the Data field.  |

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| 21121 | 27.3.11.16 | 630.61 | "The scrambling and encoding process of the bits in the Data field OFDM symbols before and after each midambleare the same as the case where midamble is not present." Sentence is vague. i.e. it could mean that the encoding is done and then the mid-ambles are inserted (as shown on pg 602 line 7) or each section is independently encoded (which I do not think is the intention). | Modify sentence to say exaclty what it means i.e. the scambling and ecndoing process of the data packet is identical with and without mid-ambles and the mid-amble packets are inserted at the right points. | **Revised.**Change to as in the resolution of CID21121 in doc IEEE802.11-19/1515r1. |

ax editor: please make the following change in D4.3 *Clause 27.3.11.16*

* On P630L61 (CID #21121):

The scrambling and encoding process of the bits in the Data field OFDM symbols are identical for transmissions with or without midamble.

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| 21492 | 26.16 | 445.57 | The entire section seem to only describe what a STA shall not do. Every paragraph starts with a sentence that contains "shall not". But it is not very clear what the STA should do. It may be more helpful to clarify as well how the STA should behave, instead of solely how the STA shall not behave. | as in comment. Please describe in addition to how STA shall not behave also how the STA shall or should behave. | **Revised.**Change to as in the resolution of CID21492 in doc IEEE802.11-19/1515r1.  |

Discussion:

This whole section is about how to set parameters related to midamble operations, 1) how to “DOPPLER” parameter in TXVECTOR, or DOPPLER subfield in Trigger frame common info field based on STAs PHY capabilities on Doppler Rx or Doppler Tx, or when parameter HE-LTE-Type is set to 1x HELTF or 2x HELTF; 2) how to set NUM\_STS parameter if “DOPPLER” parameter in TXVECTOR, or DOPPLER subfield in Trigger frame common info field is set to 1. It is more appropriate to rename the section name to “Midamble parameter setting rules” instead of “Midamble operations”. With the new naming, “shall not” descriptions are sufficient. There is no guidelines mandate STAs to set Doppler parameters in TXVECTOR or Doppler subfield in Trigger frame common info field to 1.

ax editor: please make the following change in D4.3 *Clause 26.16*

* On P445L57 (CID #21492):

**26.16 Midamble Parameter Setting Rules**